1. Originator	2. Log Date:	3. CCR #:	4. Rev:	5. Tel:	6. Rm #:	7. Dept.
Evan Winston	9 MAY 00	00-0507	—	301.925.0348	2013	DEV/CO

8. CCR Title: Test Executable 5A.06 Faun RoadRunner.01 (Mutex remains locked when thread is canceled). For DAACs.

9. Originator Signature/Date	10. Class	11. Type:	12. Need Date: 2May2000
[signature] 5/8/2000	II	CCR	

13. Office Manager Signature/Date	14. Category of Change:	15. Priority: (If "Emergency" fill in Block 28).
[signature] for Will Krauss 5/8/2000	Other	Emergency

16. Documentation/Drawings Impacted: N/A	17. Schedule Impact: N/A	18. CI(s) Affected:N/A DSS

19. Release Affected by this Change: 5A	20. Date due to Customer:	21. Estimated Cost: None - Under 100K

22. Source Reference: ☒NCR (attach) ☐Action Item ☐Tech Ref. ☐GSFC ☐Other:
NCR ECSed26653

23. Problem: (use additional Sheets if necessary)
Mutex remains locked when thread is canceled. Problem can occur at all DAACs. When a thread is canceled while holding a DsShMutexLock, the mutex remains locked forever. This results in hung servers. When a client dies, the active server thread is canceled by DCE. If the thread has a mutex locked at that point it will never be unlocked. This causes the server hangs.

24. Proposed Solution: (use additional sheets if necessary)
In the DsShMutex base class code was added to turn off thread cancellation before locking the mutex. When the mutex is unlocked thread cancellation is turned back on.
Apply the fixes merged for NCR26653 to the current 5A baseline and provide as a Test Executable to the DAACs to resolve the identified problems with science dataserver upon mutex error. CM builds a TAR file for the listed files from the current 5A baseline and delivers to the SMC. See next page for installation information and file name.

25. Alternate Solution: (use additional sheets if necessary)
Take no action now and wait until 5B is available at the DAACs.

26. Consequences if Change(s) are not approved: (use additional Sheets if necessary)
DAACs must continue to work around the lock allocation problems and/or modify operating procedures.

27. Justification for Emergency (If Block 15 is "Emergency"):
Resolves DAAC operational problem.

28. Site(s) Affected: ☐EDF ☐PVC ☐VATC ☒EDC ☒GSFC ☒LaRC ☒NSIDC ☒SMC ☐AK ☐JPL
☐EOC ☐IDG Test Cell ☐Other

29. Board Comments:	30. Work Assigned To:	31. CCR Closed Date:

32. EDF/SCDV CCB Chair (Sign/Date):	Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
33. M&O CCB Chair (Sign/Date): *[signature]* 5/9/00	Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
34. ECS CCB Chair (Sign/Date):	Disposition: Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS

ADDITIONAL SHEET

CCR #: 00-0507 **Rev:** — **Originator:** Evan Winston

Telephone: 301.925.0348 **Office:** DEV/CO

Title of Change: Test Executable 5A.06 Faun RoadRunner.01 (Mutex remains locked when thread is canceled). For DAACs.

CM: PLEASE, build Sun TAR file(s) for the listed file from current 5A baseline and provide to the SMC.

/ecs/formal/DSS/lib/sun5.5/libDsSh.so

SMC: Receive the TAR file(s) and make available to the DAACs.

DAAC Install Instructions:

1. 1. Get File from SMC distribution;
Use the 'cp' from the command line to install/replace files.

2. REPLACE all occurrances of the file included with this TE mode-by-mode, using the same permissions levels and ownerships as previous file.
/usr/ecs/<mode>/custom/lib/DSS

CM01AJA00

ORIGINAL